

Application Serial No. 10/675,421
Amendment dated May 23, 2005
Reply to Office Action dated February 23, 2005

Listing of Claims

1. (Currently Amended) A system for applying labels to articles, the system comprising:

an article conveyor defining a labeling path for transporting articles to be labeled between a first location and a second location, said article conveyor and said labeling path having a moving period and a stopping period for adapting for imparting intermittent motion to said articles to be labeled; and

a plurality of decorating stations, each having a transfer roll proximate to and adapted to be in confronting relationship with selected articles being carried by said article conveyor, each of said transfer rolls associated with -a- an independent web including labels;

wherein each of said articles moving on the article conveyor receives at least one label from one of said decorating stations.

2. (Currently Amended) The system of claim 1, further comprising a controller operably coupled to the article conveyor and to each of the decorating stations to coordinate intermittent motion of the articles on the article conveyor with the operation of each decorating station, wherein said intermittent motion includes a moving period and a stopping period, and wherein said stopping period substantially coincides with the application of said labels to said articles.

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3. (Original) The system of claim 1, further including a first drive system for driving said article conveyor.

4. (Original) The system of claim 3, wherein said article conveyor includes a rotatable turret operably coupled to the first drive system.

5. (Original) The system of claim 1, further including a plurality of rotatable article holding assemblies, each proximate to one of said decorating stations, and adapted to receive the selected article for processing by the associated decorating station.

6. (Original) The system of claim 5, wherein each said article holding assembly includes an article seat adapted to be disposed beneath said article when said article is in said article holding assembly, said article seat adapted to receive said article.

7. (Original) The system of claim 6, wherein said article holding assembly includes a nozzle adapted to be disposed above said article when said article is in said article holding assembly, said nozzle being in communication with an air source and adapted to contact and confront said article in such manner as to inflate said article with air.

8. (Original) The system of claim 5, wherein each article holding assembly further comprises a second drive system for rotating said article holding assembly in a first direction.

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9. (Original) The system of claim 8, wherein each of said decorating stations further comprises a third drive system for rotating the associated transfer roll and for moving said web, said web causing rotation of said transfer rolls in a second direction, said second direction being opposite to said first direction.
10. (Original) The system of claim 2, wherein said stopping period occurs when said article being carried by said article conveyor is proximate to and in confronting relationship with one of said decorating stations.
11. (Original) The system of claim 1, wherein said plurality of decorating stations cooperate to apply the labels to said articles at a rate of greater than 150 labels per minute.
12. (Original) The system of claim 1, wherein each decorating station further comprises a heat source for enhancing application of said labels to said articles.
13. (Original) The system of claim 1, wherein each of said plurality of decorating stations simultaneously applies labels to articles.
14. (Original) The system of claim 1, wherein multiple decorating stations each apply one of labels to the same article.

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15. (Original) A system for applying labels to articles, the system comprising:

an article conveyor defining a labeling path for transporting articles to be labeled between a first location and a second location, said article conveyor and said labeling path having a moving period and a stopping period for adapted for imparting intermittent motion to said articles to be labeled;

a plurality of decorating stations, each having a transfer roll proximate to and adapted to be in confronting relationship with selected articles being carried by said article conveyor, each of said transfer rolls associated with a web including labels, wherein each of said articles moving on the article conveyor receives at least one label from one of said decorating stations;

a controller operably coupled to the article conveyor and to each of the decorating stations to coordinate intermittent motion of the articles on the article conveyor with the operation of each decorating station, wherein ~~said intermittent motion includes a moving period and a stopping period, and wherein said stopping period substantially coincides with the application of said labels to said articles;~~

a first drive system for driving said article conveyor;

a plurality of rotatable article holding assemblies, each proximate to one of said decorating stations, and adapted to receive the selected article for processing by the associated decorating station, wherein each article holding assembly further comprises a second drive system for rotating said article holding assembly in a first direction; and

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a third drive system for rotating the associated transfer roll and for moving said web, said web causing rotation of said transfer rolls in a second direction, said second direction being opposite to said first direction.

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16. (Currently Amended) A method for applying labels to articles, the method comprising:

intermittently moving a series of articles to be labeled on an article conveyor defining a labeling path for transporting articles to be labeled between a first location and a second location, said article conveyor and said labeling path having a moving period and a stopping period for imparting intermittent motion along a said labeling path proximate at least first and second decorating stations in confronting relationship with articles being carried by said article conveyor, said first and second decorating stations having first and second webs, respectively, each including labels;

stopping said article conveyor such that a first article is in confronting relationship with said first decorating station and a second article is in confronting relationship with said second decorating station; and

applying labels to said first and second articles associated with said first and second decorating stations while said first and second articles are stopped.

17. (Original) The method of claim 16, further comprising moving said articles along the labeling path with said article conveyor subsequent to applying said labels such that said first article having been labeled and said second article having been labeled are moved from confronting relationship with said first and second decorating stations, respectively.

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18. (Original) The method of claim 17, further comprising stopping said article conveyor such that a third article to be labeled is in confronting relationship with said first decorating station and a fourth article to be labeled is in confronting relationship with said second decorating station.

19. (Original) The method of claim 16, wherein said applying labels to said first and second articles is performed sequentially

20. (Original) The method of claim 16, wherein said applying labels to said first and second articles is performed simultaneously.

21. (Original) The method of claim 16 further comprising heating said labels prior to applying said labels to said articles.

22. (Original) The method of claim 16 further comprising heating said labels and said articles subsequent to applying said labels to said articles.

23. (Original) The method of claim 16, further comprising applying a first label to said first article at said first decorating station, and subsequently applying a second label to said first article at said second decorating station.

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24. (Currently Amended) A method for applying labels to articles, the method comprising:

intermittently moving a series of articles to be labeled on an article conveyor defining a labeling path for transporting articles to be labeled between a first location and a second location, said article conveyor and said labeling path having a moving period and a stopping period for imparting intermittent motion along a said labeling path proximate at least first and second decorating stations in confronting relationship with articles being carried by said article conveyor, said first and second decorating stations having first and second webs, respectively, each including labels;

stopping said article conveyor such that a first article is in confronting relationship with said first decorating station and a second article is in confronting relationship with said second decorating station;

applying labels to said first and second articles associated with said first and second decorating stations while said first and second articles are stopped; moving said articles along the labeling path with said article conveyor subsequent to applying said labels such that said first article having been labeled and said second article having been labeled are moved from confronting relationship with said first and second decorating stations, respectively; and

stopping said article conveyor such that a third article to be labeled is in confronting relationship with said first decorating station and a fourth article to be labeled is in confronting relationship with said second decorating station.